

**TRANSMITTAL OF APPEAL BRIEF (Large Entity)**Docket No.  
**INTL-0274-US**In Re Application Of: **EDWARD O. CLAPPER**Serial No.  
**09/409,128**Filing Date  
**September 30, 1999**Examiner  
**K. Bui**Group Art Unit  
**2711**Invention: **LINKING TO VIDEO INFORMATION****RECEIVED****MAR 28 2001****Technology Center 2600****TO THE ASSISTANT COMMISSIONER FOR PATENTS:**

Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed on

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Edward O. Clapper	§	Group Art Unit: 2711
	§	
Serial No.: 09/409,128	§	
	§	Examiner: K. Bui
Filed: September 30, 1999	§	
	§	
For: LINKING TO VIDEO	§	
INFORMATION	§	Atty. Dkt. No.: INTL-0274-US

Board of Patent Appeals & Interferences  
Commissioner for Patents  
Washington, D.C. 20231

APPEAL BRIEF

Sir:

Applicant respectfully appeals from the final rejection  
mailed November 22, 2000.

I. REAL PARTY IN INTEREST

The real party in interest is the assignee Intel  
Corporation.

II. RELATED APPEALS AND INTERFERENCES

None.

III. STATUS OF THE CLAIMS

All of the claims are rejected. Each rejection is  
appealed.

#### IV. STATUS OF AMENDMENTS

There were no amendments.

#### V. SUMMARY OF THE INVENTION

A computer system 10 may include a processor-based unit 12 coupled to a display 14 such as a conventional television receiver having a display screen 22. A remote control unit (RCU) 16 may be utilized to remotely control the unit 12 and the display 14. Thus, in accordance with one embodiment of the present invention, mouse style commands may be produced by operating the directional buttons 26 to move a cursor image or highlighting on the display screen 22 to implement a conventional pointing function.

The RCU 16 may be an airwave transceiver 24 which communicates with transceivers 18 on the units 12 and 20. In this way, airwave communications may be undertaken between the components. The user can then control each component by providing input commands through the cursor controls 26, the pushbuttons 28 or the keypad 30.

In accordance with one embodiment of the present invention, the system 10 may be one of a plurality of similar receivers 10, shown in Fig. 2, which receive video transmissions (indicated by the arrow 35a) from a server 34. Each receiver 10 may

communicate through a back channel 35b, in accordance with one embodiment of the present invention, with the server 34. Thus, as illustrated, two-way communications may be implemented between the server 34 and each of the plurality of receivers 10.

The server 34 may receive video content such as television programming from a content provider 32. The server 34 may also send communications to the content provider 32. In addition, the server 34 may communicate in a two-way communication protocol with a link library 75 in accordance with one embodiment of the present invention. See Specification at page 4, line 10 through page 6, line 4.

In one example of an implementation of the present invention, television programming may be transmitted from the server 34 to each of a plurality of receivers 10. At each receiver 10, a pointing device may be utilized to select a particular location in a particular video frame in order to access additional information. The selection may be transmitted over the back channel 35b from a receiver 10 to a server 34. In response, the server 34 may access the link library 75 to provide additional information corresponding to the particular location and the particular frame selected by the user of a receiver 10. That information may then be transmitted, for

example as indicated by the arrow 35a, from the server to the receiver 10. Alternatively, the additional information may be obtained from the content provider 32.

In the embodiments illustrated in Figs. 2 and 3, video data may define a video frame or a plurality of video frames. Each video frame may be identified (if more than one video frame is involved) by a frame identifier. The frame identifier identifies each frame of a plurality of video frames which, for example, may make up a video presentation such as a movie, a television program, or a web site as examples. In addition, a plurality of locations on a given frame may be identified relative to other frames. Thus, when the user selects a given location and a given frame, that location and the identified frame itself provide an indication of the focus of a given user. The given location on a given frame may be linked through the active media (or through other media) with additional information which may be associated with the selected location.

One convenient frame identifier is the time code in accordance with one of a variety of industry standards including the Society of Motion Picture and Television Engineers (SMPTE). Conventionally, the time codes are utilized to enable synchronization between audio and video tracks. The SMPTE time

code synchronization system is a biphase mark longitudinal time code (LTC) which can be recorded onto the audio track of a video tape in one example. See Specification at page 6, line 5 through page 8, line 15.

The SMPTE time code is a broadcast standard time which may be recorded in the format HH:MM:SS;FF, where FF is a frame number between 00 and 29, HH is a two-digit code for hours, MM is a two-digit code for minutes and SS is a two-digit code for seconds. Assuming a frame rate of 30 frames per second, the SMPTE time code may identify every frame of a video sequence such as a movie, a television program or other video information.

A frame 36, illustrated in Fig. 4, may be overlaid by a grid system having an X screen direction 40, a Y screen direction 42 and a frame identifier 38. The frame identifier provides the hours, minutes and seconds indication followed by a 00 to 29 frame number indication. In the embodiment illustrated in Fig. 4, the X and Y screen directions provide rectangular coordinates to identify a plurality of grid segments such as the segments 44 and 46. In this way, every image defined on the frame 36 may be identified by one or more grid coordinates in the X screen and Y screen directions.

Thus, as illustrated in Fig. 4, a given frame 36 may have two embedded links, for example a link 1 and a link 2 associated with the locations 44 and 46. If these locations are selected by the user, they automatically link to additional information which may be stored, for example, on the medium 70 in the embodiment of Fig. 3 or to the link library 75 or content provider 32 via the server 34 in the embodiment of Fig. 2. See Specification at page 9, line 5 through page 10, line 12.

The user may select a location 44 or 46 using a conventional pointing device such as the RCU 16. When a particular item on the display has a cursor image associated with it, in one embodiment of the present invention, and a mouse button is operated (such as the button associated with the controls 26), that particular location is selected. In response to the selection of a particular location, additional information may be identified. That is, given the particular location in a particular frame, the processor-based system may search for information linked to that particular location in that particular frame.

Thus, in one embodiment of the present invention, the content provider may know that a given location in a given frame is a particular product. When the user selects that location,

the user may be provided with additional information, such as video information, about the particular product.

Because of the location system described herein, the linked information may be added or changed at any time. For example, as users continue to select a given location on a given frame, the content provider or other entity may choose to provide additional information in response to repeated requests.

Similarly, the information which is provided may be changed at any time. Because the linked information is not hard coded into the media, the information may be changed in response to the desire to update information, to change sponsorships, or to improve the quality of the information, as examples. See Specification at page 10, line 13 through page 11, line 25.

Thus, by providing a system of location identifiers, the need for hard coding of hyperlinks may be avoided. This allows a dynamic system in which the linked information may be varied over time to meet changing needs. In addition, it enables essentially every item in a given video display to be selectively linked to additional information. Moreover, there is no need to adjust the programming of a particular page such as Internet web page, but instead, the desired item can be identified by location.



In the embodiment indicated in Fig. 2, the user selected locations together with the frame identifier may be transmitted back to the server 34 over the back channel 35b to the server. The server 34 may then be responsible for obtaining the linked information for example from the link library 75 or the content provider 32. In this case, the receiver goes outside its own system to obtain the additional information through the link. See the Specification at page 12, line 1 through page 12, line 18.

#### VI. ISSUES

- A. IS CLAIM 1 ANTICIPATED BY RANGAN?
- B. IS CLAIM 2 RENDERED OBVIOUS BY RANGAN ALONE?
- C. IS CLAIM 3 ANTICIPATED BY RANGAN?
- D. IS CLAIM 4 ANTICIPATED BY RANGAN?
- E. IS CLAIM 5 ANTICIPATED BY RANGAN?
- F. IS CLAIM 9 OBVIOUS OVER RANGAN IN VIEW OF YAUDEN?
- G. IS CLAIM 10 OBVIOUS OVER TANGAN IN VIEW OF YAUDEN?
- H. IS CLAIM 26 OBVIOUS OVER RANGAN IN VIEW OF YAUDEN?

I. IS CLAIM 27 OBVIOUS OVER RANGAN AND YAUDEN?

J. IS CLAIM 30 OBVIOUS OVER RANGAN AND YAUDEN?

#### VII. GROUPING OF THE CLAIMS

For convenience claims 1, 6, 7, 8, 11, 16, 17, 20, 21, 24 and 25 may be grouped. Claims 2, 12 and 22 may be grouped. Claims 3, 13 and 23 may be grouped, claims 4 and 14 may be grouped. Claims 5 and 15 may be grouped. Claims 9 and 18 may be grouped. Claims 10 and 19 may be grouped. Claims 27, 28 and 29 may be grouped. No other claims may be grouped as shown by the separate arguments set forth in the following section.

#### VIII. ARGUMENT

A. IS CLAIM 1 ANTICIPATED BY RANGAN?

Claim 1 calls for linking video information with other information based on the location of the video information on a frame and a frame identifier.

Claim 1 was rejected under § 102e over Rangan.

In contrast, Rangan embeds hot spot into the video information. Exactly how this is done is not very clearly explained. The Examiner presumes that the hyperlinks are embedded into the frame. However, even if this were so, the

frame identifier is not utilized to link to the video information. Instead, the linking must be the entire result of the hot spot embedded into the video frame (even according to the Examiner's interpretation).

The hot spot does not even care what frame it is in and it does not care what the associated video information is. All the hot spot knows is that it was clicked on and when it is clicked on it knows what to do.

There is no indication whatsoever that the linking is done "based on the location of the video information on a frame" as opposed to the location of a hyperlink and even more importantly based on "a frame identifier". In fact, Rangan never once mentions a frame identifier.

Presumably, the Examiner believes that Rangan must use the frame identifier, but that is the whole point. Rangan does not need a frame identifier because his linking is done based on the location of the hot spot. He does not need to use a frame identifier or any other information to determine what was intended by a mouse selection. By embedding the linking information into a particular location in the form of a hot spot, Rangan avoids the problem solved by the present invention.

The linking information is embedded as the hot spot and, when selected, acts automatically.

With the claimed invention, no embedded hot spot or linking information is needed. Instead, based on a frame identifier and a location within the frame it is determined what the user was intending to select. Obviously, the claimed invention provides a much more dynamic solution since it is not necessary to embed hot spots into the video.

Rangan goes on at some length about all the different techniques to embed hot spots either dynamically or statically into the video. He discusses doing so manually and automatically and in real time and in not real time. With the applicant's claimed solution, no such operation is necessary.

Instead, with the claimed solution, based on the identifier of the frame that is clicked on and the location within the frame, the system can determine what it was that the user selected. Or course, what the user selected and what happens thereon may change dynamically over time with the applicant's claimed solution.

Even if the Examiner is correct that the hot spot resides within a frame within the video, that does not meet the method limitation of using the frame identifier to link to the video

information. There can no serious doubt that what Rangan uses is the information in the embedded hot spot to control the linking, not the frame identifier or the location of the actual video information. Contrary to the Examiner's assertion, in Rangan the linking to other information is oblivious to the frame identifier and the location of the information within the frame. Instead, Rangan is entirely focused on the information contained within the hot spot. There need be no hot spots associated with the claimed invention.

**B. IS CLAIM 2 RENDERED OBVIOUS BY RANGAN ALONE?**

Claim 2 calls for defining a display grid system and specifying at least one location in said grid system using quadrants.

The Examiner contends that Rangan inherently teaches including a grid system.

The basis for this inherency rejection is not clearly set forward in the office action. In order to make out a proper inherency rejection, the Examiner must show that the feature necessarily resides in the cited reference. See MPEP § 2112.

Here the cited Rangan reference plainly uses embedded hot spots to activate links. There is no mention whatsoever of any

type of grid system. Moreover, there is absolutely no reason why Rangan would have to use a grid system.

The Examiner's analysis is the epitome of hindsight reasoning. He is simply presuming that a cited reference (which is based on hot spots and that has nothing to do with the claimed invention) must use the claimed technique without any basis for this conclusion.

To merely presume that the claimed invention is the only way to implement a feature is to misuse the doctrine of inherency. Here there can be no doubt that all Mr. Rangan does is somehow embed hot spots. He does not use a grid system or frame identifiers in any way. If he did so, and he intended to cover this, his application was plainly defective. It is improper to suggest that absent any teaching whatsoever of the use of frame identifiers or grid system, that one skilled in the art would somehow deduce that this is what Mr. Rangan did.

The Board is respectfully requested to overturn the single reference § 103 rejection based on Rangan, not only on the grounds that the inherency rejection is improper, but also because Rangan alone cannot teach what only is taught in the applicant's patent application.

**C. IS CLAIM 3 ANTICIPATED BY RANGAN?**

Claim 3 calls for developing a frame identifier using a time code.

Rangan nowhere even mentions a time code and still the Examiner asserts a § 102 rejection. This rejection is plainly defective on its face.

The cited material (column 23, lines 15-22) never even mentions a time code or frame identifier. The rejection should be reversed.

**D. IS CLAIM 4 ANTICIPATED BY RANGAN?**

Claim 4 calls for linking to other information without encoding a hyperlink into the video information.

Of course, embedding a hyperlink is exactly what Rangan does. How the Examiner can assert that Rangan teaches this claim under § 102 is mystifying. For example, the office action refers to Figure 7 and 8 and column 18, lines 7-33 as teaching "click through and not encoding hyperlinks into video information. Of course, click throughs use hot spots and therefore the Examiner's position is totally without basis. As expressly shown in both Figures 7, there are "hot spots". A "hot spot" is a hyperlink (the two words are synonymous).

Again, the rejection is totally devoid of any rational support.

**E. IS CLAIM 5 ANTICIPATED BY RANGAN?**

Claim 5 calls for a linking to other information on the same medium that stores the video information.

In support of the rejection of this claim, the Examiner points to Figures 1 and 2 and the server 1 with its database. The Examiner claims that the reference teach as "storing information data from providers into the same database" but of course, claim 5 calls for linking to other information on the same medium that stores the video information.

The rejection on its face fails to meet the claimed limitations.

**F. IS CLAIM 9 OBVIOUS OVER RANGAN IN VIEW OF YAUDEN?**

Claim 9 was rejected under § 103 over Rangan and Yauden. Claim 9 calls for receiving a video stream and pausing the video stream when accessing other information.

The Examiner has admitted that Rangan does not teach the claimed invention. The Examiner cites Yauden for teaching a pause feature in a VCR. Of course, Yauden has nothing to do



with linking video information based on the location of the video information on a frame and a frame identifier. Therefore, Youden does not teach pausing the video stream when accessing other information. In other words, the fact that VCR's may have a pause feature does not teach pausing the ongoing video information when other information is being accessed in the course of linking to that other information from video.

Therefore, the rejection of claim 9 should be reversed.

**G. IS CLAIM 10 OBVIOUS OVER RANGAN IN VIEW OF YODEN?**

Claim 10 is dependent on claim 9 and further calls for automatically resuming the play back of the video stream when the other information is no longer being accessed. Youden does not teach automatically resuming the play back of video information when other information is no longer being accessed. Youden simply teaches a VCR with a pause feature. See column 14, lines 1-12, cited by the Examiner.

**H. IS CLAIM 26 OBVIOUS OVER RANGAN IN VIEW OF YODEN?**

Claim 26 was rejected over the combination of Rangan in view of Youden.

Claim 26 calls for storing video information as received for playback in the sequence the information was received. Claim 26 also calls for allowing playback of any portion of stored video information while continuing to store said incoming video information.

A VCR can not do this operation. A VCR is basically a serial memory that uses serial or sequential magnetic tape storage. The VCR head is not at two different locations at the same time. In other words, the head is not at one location to play back and another location to store. Moreover, if this were attempted, one could essentially overwrite the same material just recorded.

Thus, neither Youden or Rangan disclose allowing playback of any portion of the stored video information while continuing to store said incoming video information.

Moreover, claim 26 calls for automatically pausing the playback of video information when the user is changing the software focus while continuing to record the incoming video stream. Thus, in response to a change of software focus (such as selecting an item in a frame), the video playback is automatically paused. However, the incoming video stream continues to be recorded.

The VCR simply can not do this. Namely, it can not pause the playback of video and continue to record the incoming video stream. Again, this is because a VCR is a serial memory.

The combination of Youden and Rangan still teaches nothing pertinent to claim 26. As a result, claim 26 and the claims dependent thereon should be in condition for allowance.

**I. IS CLAIM 27 OBVIOUS OVER RANGAN AND YODEN?**

Claim 27 calls for automatically pausing the playback of video information when the user selects a link to view different information. Nothing in Youden detects the selection of a link and automatically pauses the video. None of the cited material in Youden in any way supports the rejection of claim 27.

Therefore, the rejection of claim 27 over Rangan (which the Examiner concedes shows nothing which is set forth in claim 27) in view of Youden (which is asserted for teaching claim 27 but contains no such teaching) should be reversed.

**J. IS CLAIM 30 OBVIOUS OVER RANGAN AND YODEN?**

Claim 30 calls for automatically resuming the playback of the video information when the user returns focus back to the playback of video information. Again, no such automatic feature


is anywhere taught in either of the cited references.  
Therefore, the rejection should be reversed.

#### IX. CONCLUSION

Since the rejections of the claims are baseless, they  
should be reversed.

Respectfully submitted,

Date: 3/21/01

  
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## APPENDIX OF CLAIMS

The claims on appeal are:

- 1           1.    A method of linking information to video  
2   information comprising:  
3                linking video information with other information  
4   based on the location of the video information on a frame  
5   and a frame identifier; and  
6                accessing said other information in response to a  
7   user selection of a frame location.
- 1           2.    The method of claim 1 including defining a  
2   display grid system and specifying at least one location in  
3   said grid system using coordinates.
- 1           3.    The method of claim 2 including developing a  
2   frame identifier using a time code.
- 1           4.    The method of claim 1 including linking to other  
2   information without encoding a hyperlink into the video  
3   information.
- 1           5.    The method of claim 1 including linking to other  
2   information on the same medium that stores said video  
3   information.
- 1           6.    The method of claim 1 including linking video  
2   information on one processor-based system to other  
3   information on a separate processor-based system.

1           7.    The method of claim 1 wherein accessing said  
2 other information includes using a pointing device to  
3 select a location on a frame.

1           8.    The method of claim 7 wherein using a pointing  
2 device includes using a remote control unit.

1           9.    The method of claim 1 further including receiving  
2 a video stream, and pausing said video stream when  
3 accessing said other information.

1           10.   The method of claim 9 including automatically  
2 resuming the playback of said video stream when the other  
3 information is no longer being accessed.

1           11.   An article storing instructions that cause a  
2 processor-based system to:  
3               link video with other information based on the  
4 location of the video information on a frame and a frame  
5 identifier; and  
6               access said other information in response to user  
7 selection of a frame location.

1           12.   The article of claim 11 further storing  
2 instructions that cause a processor-based system to define  
3 a grid system on each frame and specify at least one  
4 location in said frame using a coordinate system.

1           13. The article of claim 12 further storing  
2 instructions that cause a processor-based system to develop  
3 a frame identifier using a time code.

1           14. The article of claim 11 further storing  
2 instructions that cause a processor-based system to link to  
3 other information without an encoded hyperlink in the video  
4 information.

1           15. The article of claim 11 further storing  
2 instructions that cause a processor-based system to link to  
3 other information on the same medium that stores said video  
4 information.

1           16. The article of claim 11 further storing  
2 instructions that cause a processor-based system to link  
3 video information on one processor-based system to other  
4 information on a separate processor-based system.

1           17. The article of claim 11 further storing  
2 instructions that cause a processor-based system to receive  
3 signals from a pointing device to select a location on a  
4 frame.

1           18. The article of claim 11 further storing  
2 instructions that cause a processor-based system to receive  
3 a video stream, and pause the playback of the video stream  
4 when accessing the other information.

1           19. The article of claim 18 further storing  
2 instructions that cause a processor-based system to resume  
3 the playback of said video stream when the other  
4 information is no longer being accessed.

1           20. A processor-based system comprising:  
2           a processor; and  
3           a storage coupled to said processor, storing  
4 software to link to additional information based on the  
5 user's selection of a frame and frame location.

1           21. The system of claim 20 including a pointing  
2 device to enable the user to select a frame and frame  
3 location.

1           22. The system of claim 20 wherein said storage  
2 stores a coordinate system for identifying locations on a  
3 frame.

1           23. The system of claim 20 wherein the software  
2 identifies a frame using a time code.

1           24. The system of claim 20 wherein said software  
2 links to information stored outside said processor-based  
3 system.

1           25. The system of claim 20 wherein said software  
2 links to information stored on said system.



1           26. A method of recording incoming video information  
2 comprising:  
3           storing said video information as received, for  
4 playback in the sequence the information was received;  
5           allowing playback of any portion of stored video  
6 information while continuing to store said incoming video  
7 information; and  
8           automatically pausing the playback of said video  
9 information when the user changes the software focus, while  
10 continuing to record the incoming video stream.

1           27. The method of claim 26 including automatically  
2 pausing the playback of video information when the user  
3 selects a link to view different information.

1           28. The method of claim 27 including linking to  
2 different video information based on the user's selection  
3 of a location and a frame on a display of video  
4 information.

1           29. The method of claim 28 including automatically  
2 linking to said different video information based on the  
3 user's selection of a particular frame location using a  
4 pointing device.

1           30. The method of claim 26 including automatically  
2 resuming the playback of said video information when the  
3 user returns the focus back to the playback of said video  
4 information.